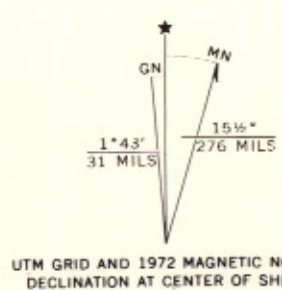




Field mapping by author in 1984
J. Parker, Cartographer

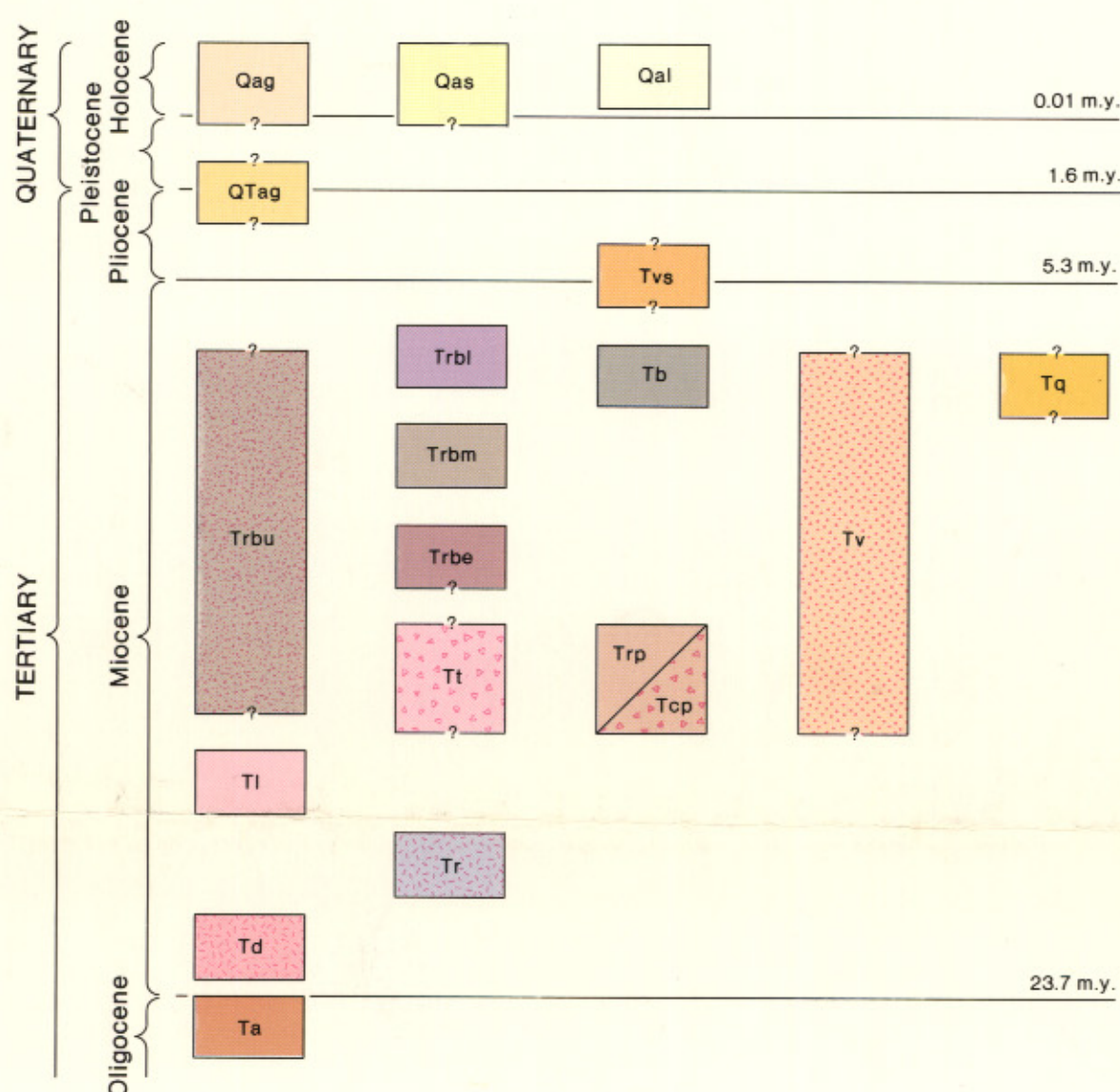


UTAH

QUADRANGLE LOCATION

1985

CORRELATION OF MAP UNITS



DESCRIPTION OF MAP UNITS

- Qal** Alluvium (Holocene) — Unconsolidated sand and silt in ephemeral stream channels.
- Qag** Alluvium (Holocene and Pleistocene?) — Unconsolidated sand and gravel covering slopes and plains. Also includes sand, gravel and boulder deposits with fan morphology.
- Qas** Alluvial plain sand (Holocene and Pleistocene) — Mostly quartz-rich sands.
- QTag** Older dissected alluvium (Holocene, Pleistocene, and Pliocene?) — Older slope and plain alluvium presently being eroded. These deposits are found mainly within the graben basin in the east-central portion of the quadrangle.
- Tvs** Local volcanic and sedimentary basin-fill deposits (Pliocene?) — 0-400 ft. Volcanic sandstone, air-fall tuffs, tuffaceous sediments, and quartz-rich sandstone.
- Tb** Olivine-augite basalt (Miocene) — 0-200 ft. Dark gray to black, coarse-grained basaltic lavas that contain plagioclase, olivine, augite and Fe-Ti oxides. (10.8 ± 0.6 m.y., Best and others, 1980).
- Tv** "Mine Series" volcanoclastic rocks (Miocene) — 0-1,200 ft. Crudely bedded volcanic breccias and conglomerates, volcanoclastic sandstones and tuffaceous sediments. The exposed thickness ranges from 100 to 150 feet, although over 1,200 feet have been drilled in the vicinity of the Escalante Silver Mine about two miles east of the map area. The K-Ar age of adularia from the Escalante vein is 11.6 ± 0.5 m.y. (Siders, 1985), although deposition of the entire "Mine Series" sequence probably spans a range ± several million years from this date.
- Tq** Limestone of Quartz Hill (Miocene) — 0-200 ft. Chalcedonic quartz to jasperoid beds resulting from pervasive silicification of lacustrine limestones beds. The beds contain sparse plant fossils and have an exposed thickness of 50 to 80 feet in the Piñon Point quadrangle.
- Rhyolite of Beryl Junction (Miocene)**
- Trbl** Later gray rhyolite member — 0-100 ft. Gray, flow-layered rhyolitic lavas that occur in only minor amounts as small plugs or flows.
- Trbu** Volcanoclastic facies member — 0-200 ft. Includes matrix-supported volcanoclastic rocks, that contain dominantly rhyolitic lithic fragments as well as silicified and/or iron-stained and hydrothermally-altered, fragmental, rhyolitic lavas. Deposition probably spans the entire time of Trbe to Trbl.
- Trbm** Rhyolitic flow member — 0-400 ft. Includes both dense, reddish-purple lavas with sparse anorthoclase-sanidine feldspar phenocrysts and irregular gray flow streaks as well as generally gray-colored to gray- and red-mottled rocks that contain medium-sized sanidine. The former contains an average of 6.5% anorthoclase-sanidine, 2.5% Fe-Ti oxides, 0.2% clinopyroxene. Anhedral interlocking quartz grains, which occur as "stringers," comprise 1.9%. The latter contains similar mineral abundances except that the potassium feldspar is sanidine rather than anorthoclase-sanidine. K-Ar age of a feldspar mineral separate is 10.8 ± 0.5 m.y. (Siders, 1985).
- Trbe** Early high-silica rhyolite member — 0-200 ft. Flow-layered rhyolitic lavas that are chemically identical to the rhyolites of Piñon Point (Trp). These lavas, as well as the tuffs (Tt) underlying them and Trbm, may be related to the 12.8 m.y. rhyolites of Piñon Point.
- Rhyolite of Piñon Point (Miocene)**
- Trp** Rhyolite flow member — 0-600 ft. Sparsely porphyritic, flow-layered rhyolitic lavas that contain an average of 2.5% sanidine, 1.6% quartz, 1.0% plagioclase and 0.3% Fe-Ti oxide phenocrysts. K-Ar age of a feldspar mineral separate is 12.8 ± 0.6 m.y. (Siders, Mount Escalante quadrangle, map in progress).
- Tcp** Clastic member — 0-300 ft. Includes a yellowish tuff-breccia and brecciated vitrophyres. This deposit immediately underlies and is adjacent to the rhyolitic flows (Trp).
- Tt** Vitric-lithic-crystal tuff, undivided (Miocene) — 0-150 ft. Poorly welded vitric-lithic tuffs of white, tan to pale pink color, that contain yellowish pumice and gray to reddish-purple lithic fragments as well as crystals of sanidine, quartz, Fe-Ti oxides, sphene, and zircon. These tuffs may be related to the 12.8 m.y. old rhyolite of Piñon Point (Tcp, Trp).
- Ti** Quartz latite lava (Miocene) — 0-400 ft. Weakly porphyritic lavas with well-developed trachytic texture that commonly exhibit platy-fracturing in outcrop. Contains an average of 2.4% plagioclase, 2.3% clinopyroxene and 1.3% Fe-Ti oxides.
- Tr** Racer Canyon tuff (Miocene) — 0-80 ft. Pale gray, moderately welded, crystal tuff containing an average of 14.7% quartz, 11.8% plagioclase, 6.5% sanidine, 5.0% lithic fragments, 3.7% biotite, 0.7% Fe-Ti oxides and trace amounts of hornblende, sphene, apatite and zircon. (About 19 m.y., Noble and McKee, 1972).
- Td** Dacite of Piñon Park Wash (Miocene) — 0-500 ft. Strongly porphyritic dacite containing an average of 26.2% plagioclase, 6.3% biotite, 4.8% pyroxene, 1.6% Fe-Ti oxides, 0.9% quartz and trace amounts of sanidine, hornblende, zircon and apatite. K-Ar age of a biotite mineral separate is 21.7 ± 3.3 m.y. (Siders, this report).
- Ta** Andesite of Enterprise (Miocene) — 0-800 ft. Porphyritic hornblende andesite and two pyroxene andesite lavas containing 22.0-37.3% plagioclase, 0-6.4% hornblende, 2.0-6.4% clinopyroxene, 2.0-5.4% orthopyroxene, 2.3-4.0% Fe-Ti oxides and trace amounts of biotite, olivine and xenolithic fragments. K-Ar age of a hornblende mineral separate is 24.2 ± 1.2 m.y. (Siders, this report).

SYMBOLS

CONTACT
Dashed where location inferred

NORMAL FAULT
Bar and ball on downthrown side;
dashed where location inferred;
dotted where covered

STRIKE-SLIP FAULT
Arrows show relative movement;
dashed where location inferred;
dotted where covered

STRIKE AND DIP OF BEDDING
Inclined Vertical

STRIKE AND DIP OF IGNEOUS FOLIATION
Inclined Vertical

LOCATION OF ROCK SAMPLE
Geochemical K-Ar Both

Thin section only
(ts) = thin section

OTHER SYMBOLS
Vein Prospect Shaft Adit

